

Fig. 1 10

Fig. 2

Notes:

The main loop is for applications without consumer to resource bindings.

It is assumed that in this application the algorithm is extended to calculate RS in every operational period; although the algorithm does not otherwise need to calculate RS in every operational period.

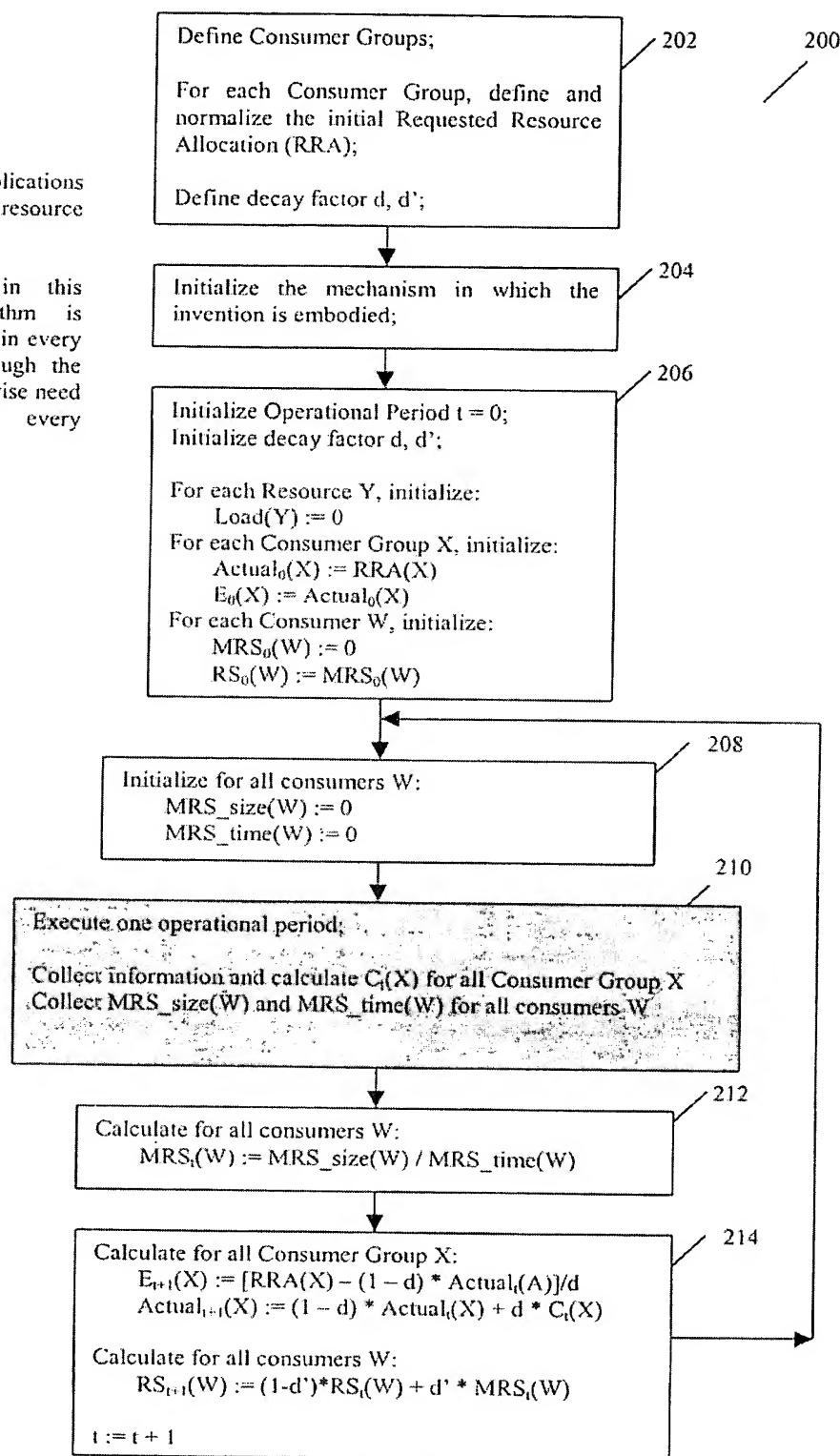


Fig. 3

Notes:

The main loop is for applications with consumer-to-resource bindings.

It is assumed that in this application the algorithm is extended to calculate RS and RI in every operational period; although the algorithm does not otherwise need to calculate RS and RI in each operational period.

The differences from other diagram are highlighted in bold & larger font size

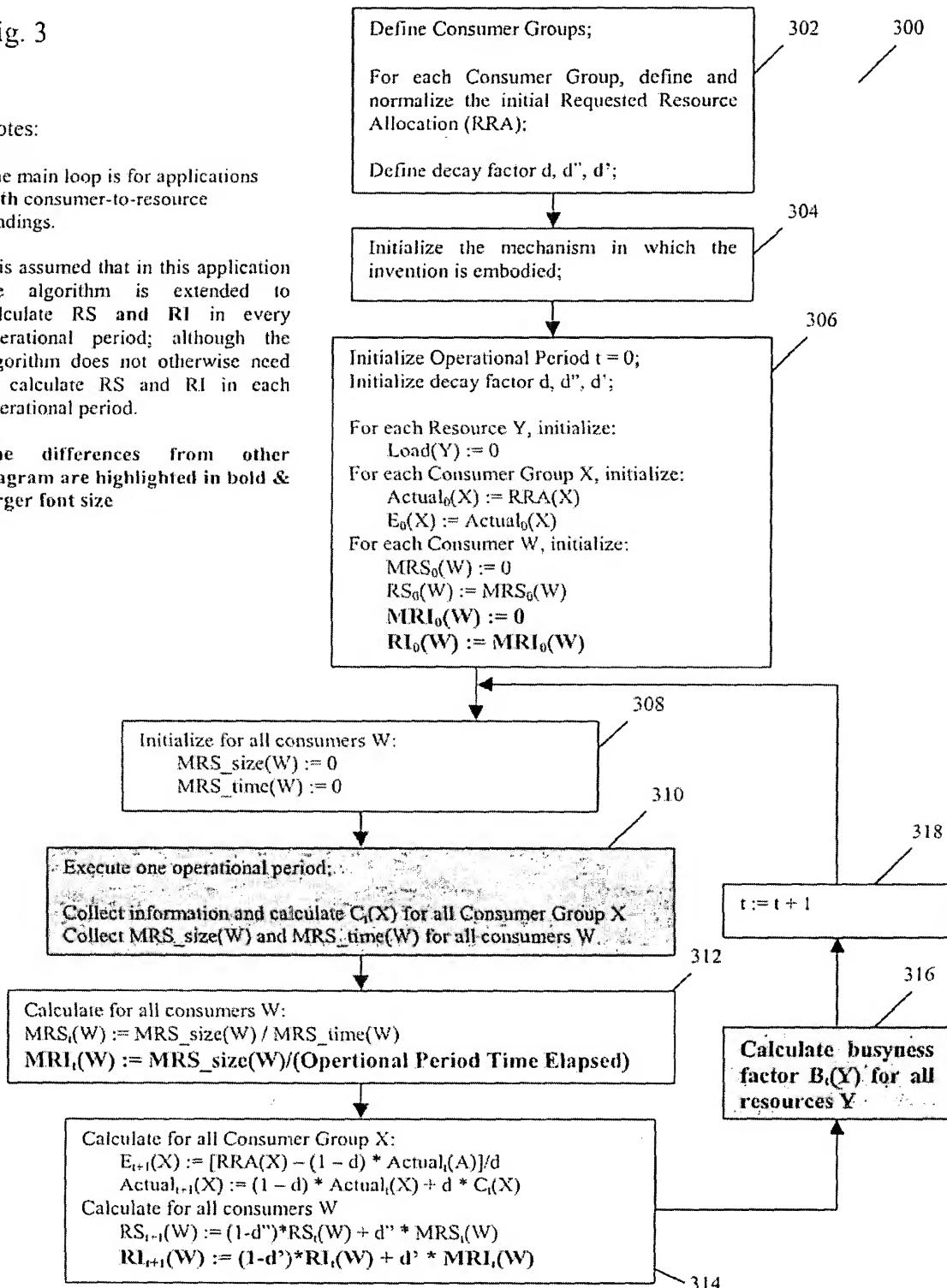


Fig 4: The main loop for applications relying on separate mechanism to find RIs and RSSs

There is no need to collect MRSs or MRIs, and there is no need to calculate RSSs and RIs

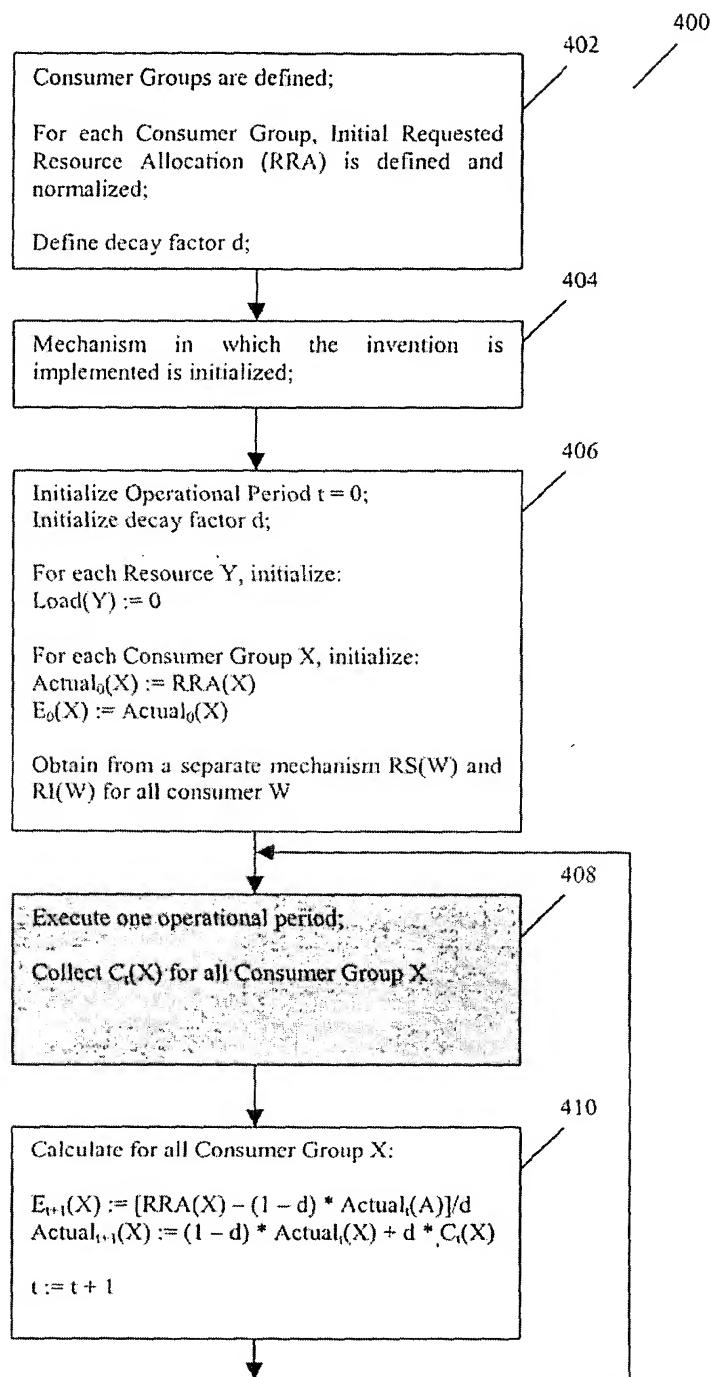


Fig 5: Executing one operational period - assuming that the request arbitration and the resource selection are asynchronously done. Additional synchronization measures might be needed.

The 1st half: arbitrating among Consumer Groups

The WS decaying mentioned in the text is not shown in this flowchart and is considered to be a trivial extension to the algorithm

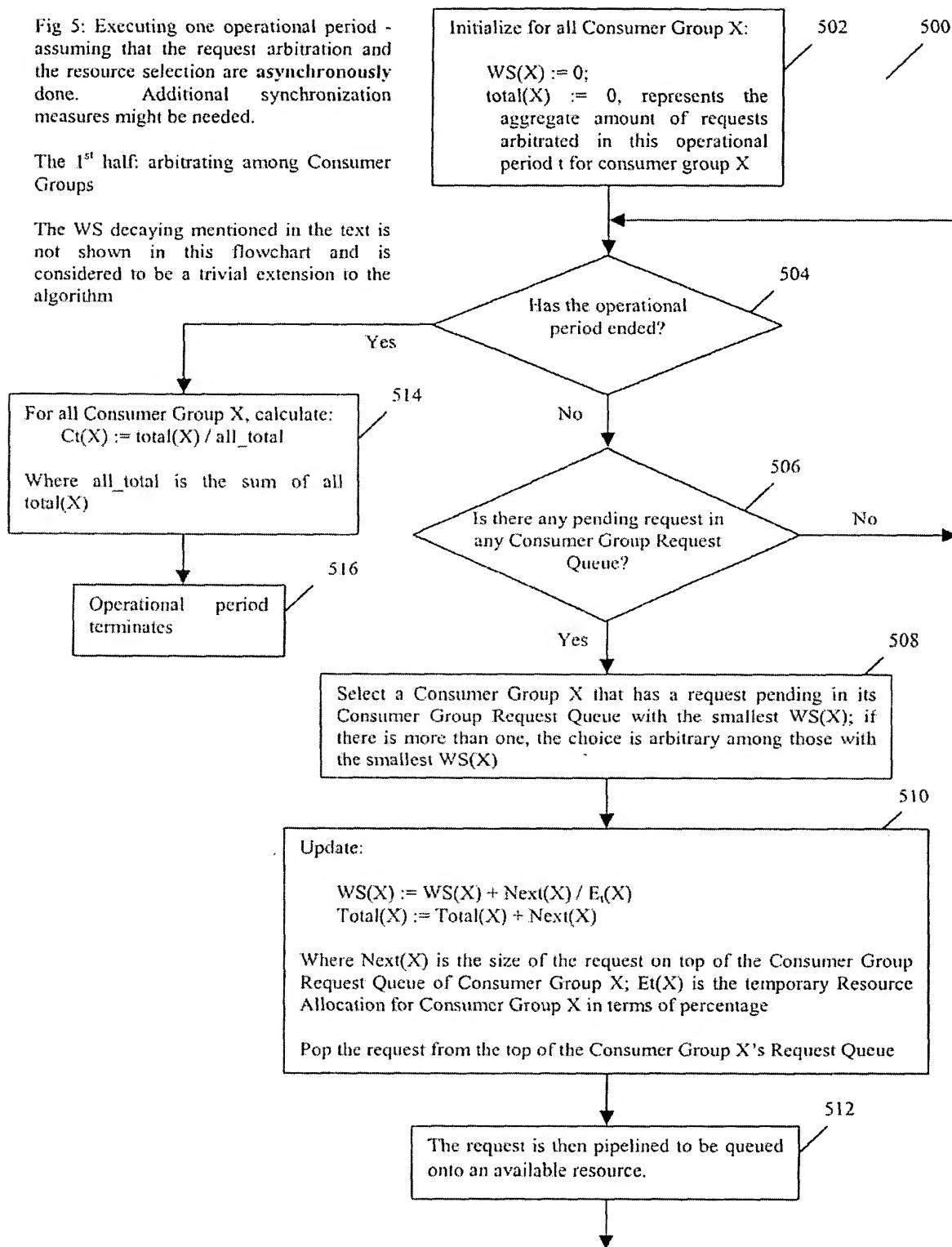


Fig 6: Executing one operational period – assuming that the request arbitration and the resource selection are asynchronously done, assuming that there is no consumer to resource binding. Additional synchronization measures might be needed.

The 2nd half: selecting resource to process the pipelined requests;

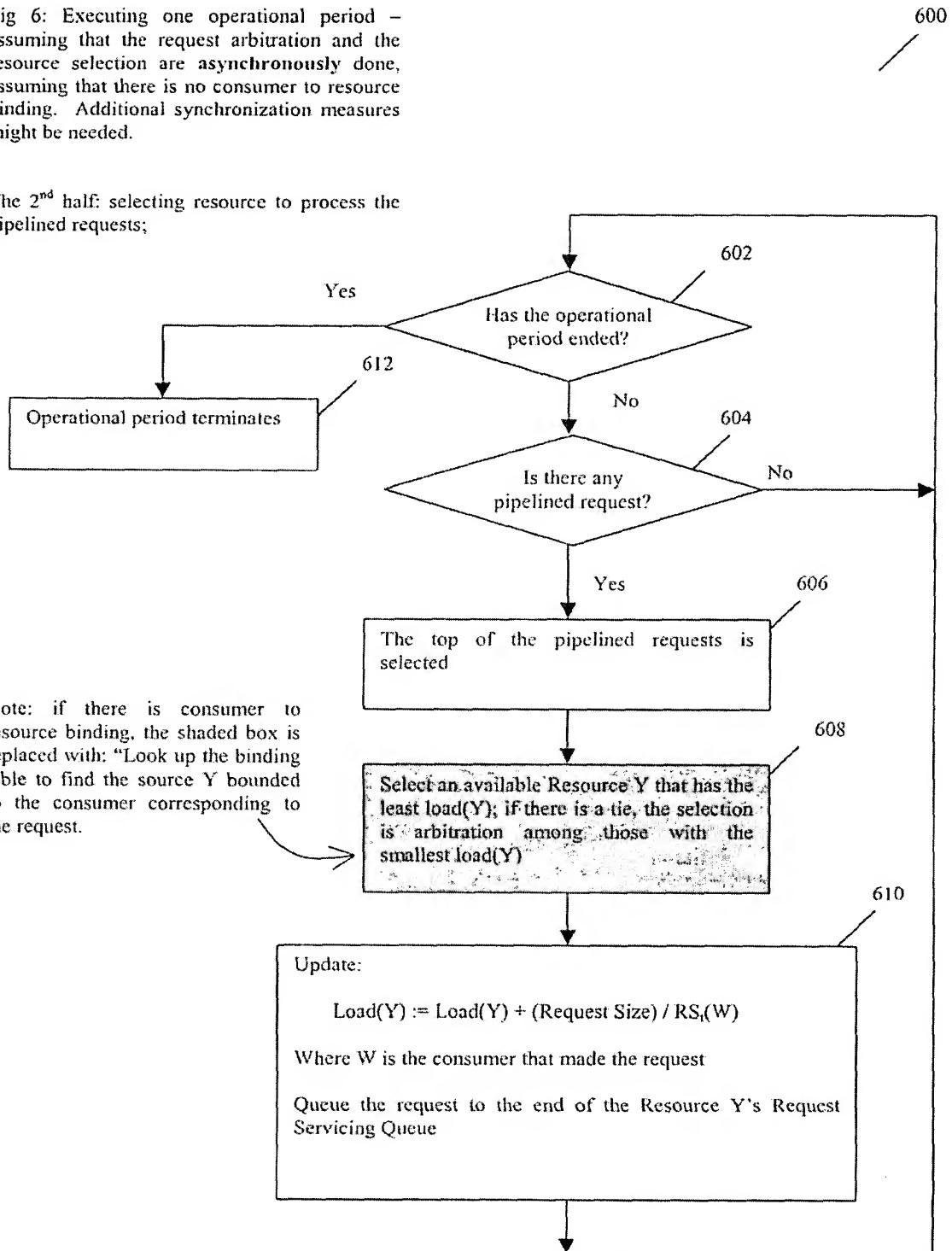


Fig 7: Executing one operational period – assuming that the request arbitration and the resource selection are **synchronously** done, assuming that there is no consumer to resource binding.

It shows both the request arbitration and resource selection

The WS decaying mentioned in the text is not shown in this flowchart and is considered to be a trivial extension to the algorithm

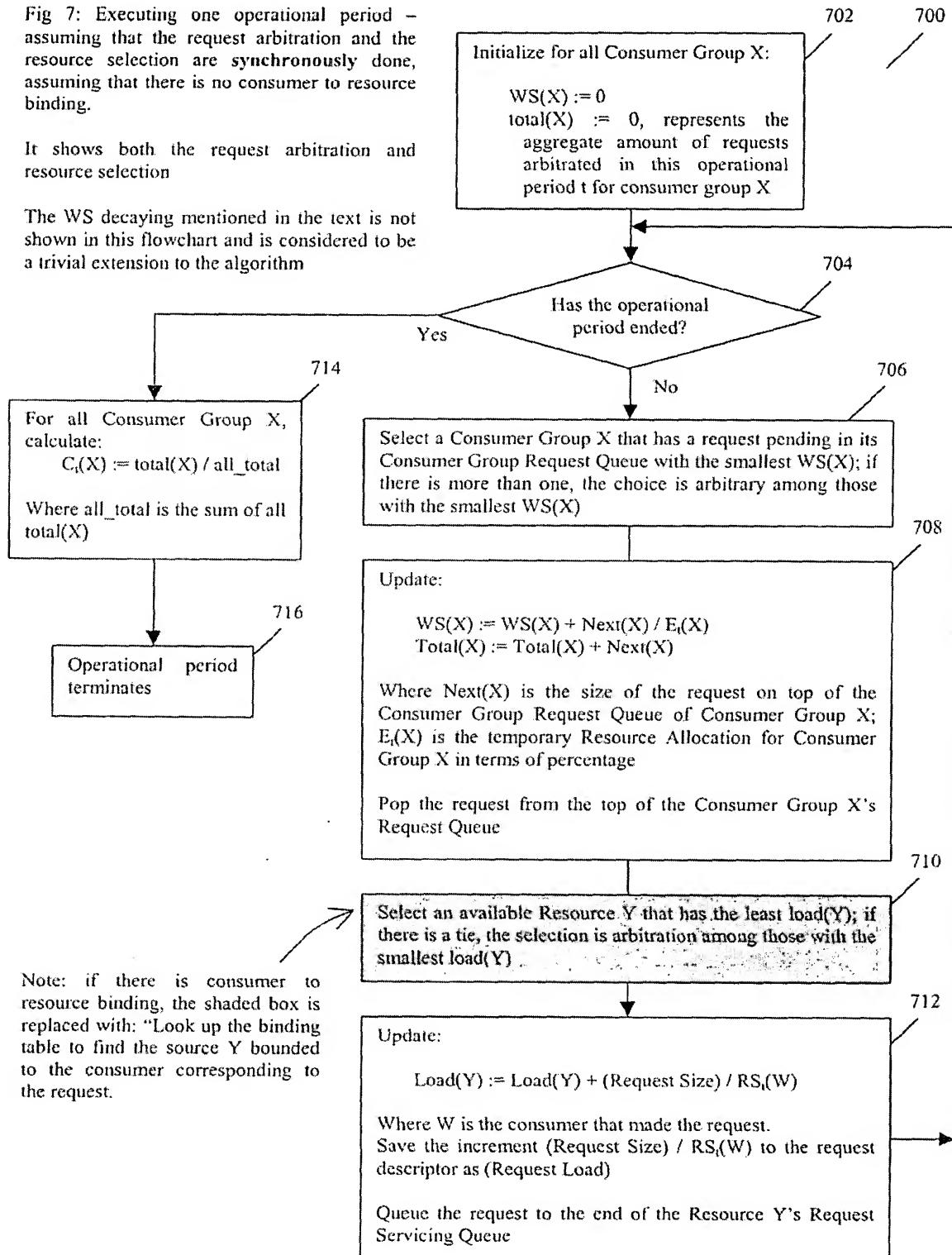


Fig 8: Processing completion of requests

Assuming there is hardware support for measuring the duration for servicing of a request

Assuming no consumer to resource binding; hence, there is no need to collect MRSs, and there is no need to calculate RSS.

